

APPENDIX D

UXO SITE STATISTICAL EXAMPLES

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Example 1:

Information that is necessary

Size of sector: 85 acres

UXO expectation: Little or no contamination

Expected number of people at the site: 40/day

Statistic to use : UXO Calculator

Target value: 0.1/acre

Sampling acreage: 20.2 acres

Sampling results: No UXO found

90% density confidence interval : 0-0.0941/acre

Expected value: 0.0377/acre

Sector was homogeneous

Example 2:

Information that is necessary

Size of sector: 43 acres

UXO expectation: Little or no contamination

Expected number of people at the site: 63/day

Statistic to use : UXO Calculator

Target value: 0.1/acre

Sampling acreage: 17.9 acres

Sampling results: One UXO item was found in the first grid. A decision to sample only 5 percent of the sector was made. During the remainder of sampling, two more UXO items were found.

Sector was homogeneous

90% density confidence interval: .0698-3.0465/acre

Expected value: 1.3953/acre

Example 3

Information that is necessary

Size of sector: 312 acres

UXO expectation: None (no historical proof of UXO)

Expected number of people on the site: 12/day

Statistic to use: None

Decision: Use exploratory surface sample because of political considerations

Results: No UXO or OE scrap was found. No statistical report was written, but the fact that no UXO or OE scrap was found is mentioned in the EE/CA.

Example 4:

Information that is necessary

Size of sector: 268 acres

UXO expectation: Heavy (past bombing range)

Expected number of people on the site: 2/day

Technology used for investigation: magnetometer, with flags being placed in the ground for later use.

Statistic chosen: SiteStats/GridStats

Size of grid: 100 by 100 feet

Sample required: 46 grids (10.56 acres). However, because GridStats is used, the actual sampling area is only 3.32 acres.

Sampling Results: Homogeneous

4 UXO found

90% confidence density interval (based on UXO Calculator) = 0.0149-2.3993 UXO/acre

Expected value: 1.5023/acre